

# Media Convergence in A Metaverse Perspective —Exploration of Economic Development Path of T2O Business Model

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**Abstract:** According to the 48th China Internet Network Information Center (CNNIC), there are currently 1.011 billion Internet users in China, and the Internet penetration rate is 71.6%. The development of the industry and the life of the public are closely related to the Internet. In 2021, which is called the first year of the Metaverse, all industries in China are actively preparing for the integration into the Metaverse, and Metaverse integration has become a windfall for the development of various industries. Compared with the first year of the Metaverse, as early as 2017, Chinese e-commerce industry integrated the cultural industry to form a T2O business model, and used AR technology and VR panoramic technology to make initial exploration into the Metaverse field. This paper compares specific cases and explores the economic development path of the "TV + e-commerce" business model under the Metaverse perspective.

**Keywords:** The Metaverse; T2O Business model; Industrial integration; Immersion

With the rapid development of the Internet, human society has entered the 4.0 era of the industrial revolution. If the 3.0 era of the industrial revolution was the beginning of the network era, then the 4.0 era of the industrial revolution will be a huge leap forward, which will promote the development of the entire industry. The use of information technology to promote industrial change is an all-encompassing phenomenon, and human civilisation has become inseparable from "intelligence". The development of artificial intelligence, the advent of the 5 G era and the spread of virtual reality technology have brought about a sea change in our lives, and in 2021 the Metaverse, based on existing network technology, has become one of the top ten buzzwords of

2021, as selected by Newsweek in China. There is a Chinese saying that "even if there is a chicken, the sky will be bright, and if there is no chicken, the sky will still be bright". The key is who "wakes up" first before the wind comes. Under the tuyere of the Metaverse, the Metaverse education, the Metaverse medicine, the Metaverse news, etc. have appeared. All walks of life have contributed to the realization of the Metaverse. It can be said that the development of the Metaverse is another milestone in the history of human development.

## 1 Understanding the metaverse and T2O business model

### 1.1 Definition of the metaverse

As for what the Metaverse is, it can be seen from the review of relevant literature that there are different opinions on the origin of the Metaverse. Most scholars believe that it originated from the American science fiction novel "Snow Crash" in 1992, while others believe that the term Metaverse originated in Plato's The State, which distinguishes between the rational world and the sensual world, and that it would be futile to trace the origin of the Metaverse when it arrived. The Metaverse is a digital living space that uses technology to connect the real world with the virtual world to create a new social system; Wikipedia's definition of the Metaverse: a 3D virtual world focused on social links. What is the Metaverse? Xinhuanet: The Metaverse itself is not a technology but a concept. The formation of the Metaverse requires the integration of artificial intelligence and big data to achieve the fusion of reality and reality[1]. The meta-universe is described briefly in "What is a 'meta-universe': an ecological picture of the future of a mediated society" by Yu Guoming, Geng Xiaomeng[2], the author argues that the Metaverse is the convergence of Internet technologies such as the Internet, virtual reality, augmented reality, immersion and digital twins, and that the Metaverse is composed of the integration of points into lines.

### 1.2 The business model of T2O

TV To Online can be described as the integration of TV media with e-commerce, and it can also be described as the commercialization of TV media, T2O advertising means that viewers can purchase TV programs by scanning the QR code or shaking

their mobile phones while watching TV programs. A marketing method for the same product of the show. The T2O TV advertising business model has great advantages over other types of advertising, which can be classified into the following 5 points: first of all, in terms of the content of the advertisements, viewers can scan the QR code on the screen or shake the mobile phone to buy the product, which is better than the passive acceptance of the advertisements. Second, in terms of advertising effects, most TV commercials are only ten or fifteen seconds long, and it is very difficult to explain the advantages of a product in just ten seconds or so. This kind of memory can only be directed at the brand, not the product, and the brainwashing effect will be disliked by many viewers. Third, in terms of services, TV dramas and e-commerce cooperation have their own roles to play, with the broadcast of dramas and variety shows responsible for attracting viewers and e-commerce responsible for serving them. The inconvenience of TV shopping has led to the loss of the young audience, who have the strongest purchasing power. Fourth, in terms of the value of TV series derivatives, TV series derivatives are more attractive to young viewers than other products. In recent years, TV series derivatives around TV series range from clothing and accessories to beauty products, and it has become a new concept for many young viewers to pay for their idols, and the T2O TV series advertising business model extends the structural chain of the TV series industry and increases the financial income of TV series producers. Finally, in terms of product content display, T2O's static product display page combined with TV promotion makes the product image three-dimensional with good promotional effect and allows buyers to understand the product more intuitively.

## 2 The development of the metaverse and the T2O business model

### 2.1 Development of the metaverse

The emergence of the Metaverse has opened a window to the virtual world for human civilisation, and many countries around the world begun to build the virtual spaces of the Metaverse. Basic Plan for Metaverse Seoul, released by the Seoul Metropolitan Government in November 2021, states that the Metaverse administrative service ecosystem will be created in three phases from 2022 in all areas of the city government, including economic, cultural, tourism, education, and correspondence. On 26 January 2022, in China, the "China Metaverse White Paper" was launched in

Beijing. The China Metaverse White Paper not only covered the application scenarios and technology of the Metaverse, but also imagined the development trend of the integration of the Metaverse and the industry, which marks the rise of Metaverse construction to the national level. In the Internet industry, Microsoft, Bytedance, Tencent and NetEase have also joined the construction of the meta-universe Internet, and Facebook directly changed its name to Meta to focus on building the meta-universe ecosystem. If the essence of web1.0 is the union of people and the Internet, then the essence of web2.0 is the interaction between people and the Internet, which allows more participation in the creation, dissemination and sharing of information products, but the disadvantage of web2.0 is the lack of commercial value, while web3.0 not only has high commercial value but also provides users with a more personalised way of customising information on the Internet through a more streamlined approach. According to the 48th China Internet Network Information Center, as of June 2021, the number of netizens in China was 1.011 billion, and the Internet penetration rate reached 71.6%. The extensive penetration of Internet applications and services has built a new form of digital society. Whether from the perspective of Internet web3.0 or the perspective of the Metaverse, it is a valuable business logic with people as the subject of perception. 2021 is the first year of the Metaverse. The initial Metaverse reflects the value brought by its commercial integration. For example, the sky-high NFT works sold on the Internet are the combination of the Metaverse and the cultural industry..

## 2.2 The development of "TV + E-commerce" T2O model

The integration and development of industries has become the main theme of China's economic development. As audiences are diverted to all media platforms, the ratings of traditional media continue to decline, and the decline in ratings is accompanied by a decrease in advertising revenue. "Global Ad Spend Forecasts" report published by Dentsu, it pointed out that the share of traditional TV advertising spending will continue to decrease in 2022, and the traditional TV industry will continue to integrate into other industries in the face of the decline in the share of traditional advertising.[3] Using SPSS data analysis to compare the audience acceptance of video advertisements inserted in the middle of TV dramas, hidden advertisements embedded in plots, and floating window advertisements in the corner of the screen, through multiple comparisons, it is concluded that most people is rejecting any type

of advertisement. However, it is concluded that the effect of implanted advertising is stronger than the other three types of media advertising based on the advertising effect. In order to maximize the benefits of commercial advertising embedded in TV dramas, T2O advertising model launched by the TV drama industry integrating e-commerce has achieved a well-integrated effect. The earliest origin of the T2O business model in the TV drama industry can be traced back to the American drama "Sons of Anarchy" in 2008. In Sons of Anarchy, more than 100 product purchase links were implanted in the form of T2O. Lyu Xiaoyue divides the development of T2O business model in China into four stages[4]. In 2006, the budding stage of Chinese women's fashion TV program Beautiful Bride and Lafaso.com integrated TV shopping; in 2012, "A Bite of China" was in its infancy; in 2014, the concept of T2O The official proposal is the growth stage; the 2015 TV series "Silent Separation" cooperated with Tmall is the comprehensive development stage. In the 2022 Chinese Spring Festival Gala, CCTV and the e-commerce company JDcom launched an activity form of watching the Spring Festival Gala and shaking it on JDcom to grab red envelopes. According to the Spring Festival consumption trend released by JDcom Big Data, there were 69.1 billion interactions that night. As of February 5, the transaction volume during the 2022 Spring Festival has increased by more than 50% year-on-year. According to the statistics of the NetsUnion Clearing Platform, the netsUnion clearing platform processed a total of 4.20 trillion yuan in cross-institutional network payment transactions in the first five days of the Spring Festival holiday, a year-on-year growth rate of 11.58 %.[5]

### 3 Integration of T2O business models in the metaverse

The integration of T2O advertising business model into the Metaverse has been developing a few years ago. In 2017, the Tmall Double 11 Festival Gala adopted AR technology and VR panoramic technology. During the viewing of the party, the audience can participate in the interaction of "celebrities come to your home" through their mobile phones, participant can interact with the stars at the party or take pictures in reality. In this session, the audience can set an appearance point for the star through AR technology, and then the star of the party will appear; the party also used a combination of VR and AR technology, allowing the audience to interact with the stars without leaving home. In 2017, the Tmall Double 11 Festival Gala was held simultaneously on Zhejiang satellite TV, Beijing Satellite TV, and Shenzhen Satellite



TV, with a turnover of 168.2 billion yuan. The Tmall Double 11 Festival Gala can be said to be a initial attempt of the integration of the cultural industry and the Metaverse of e-commerce. Since the term Metaverse had not appear in 2017, the media at that time mostly used the word "Black Technology" to describe the AR technology and VR panoramic technology reports of the party. After four years, the "black technology" at that time was now already have a name. At present, the TV T2O advertising business model is developing steadily in the Chinese TV drama and variety show market. From the 14 products in the T2O advertisement of "Silent Separation" to the official Tmall flagship store of "Word of Honor" and "Rattan", the program production Fang has realized the huge profits brought by IP peripheral products. Using meta-universe technology to allow viewers to select goods from TV up close is no longer a pipe dream. Immersive movie viewing and immersive shopping have become a new trend in the development of the industry. T2O shopping under the Metaverse has given a new definition to the interstitial advertisements that viewers dislike or even hate when watching TV —— immersive online shopping. Buying star peripherals while watching the show. Through the Metaverse technology, what the audience sees is what they get will not only increase the audience's shopping interest, but also promote the economic growth of the TV series.

Although there are many benefits to the T2O business model of the Metaverse integration, there are still some shortcomings to be solved, such as combating copycat piracy and lag in the development of peripheral products. The domestic peripheral product market is still facing serious problems of piracy and copycats. One of the main reasons is that there are deficiencies in regulations and supervision. Copycat products can survive for a long time before they are discovered and paid attention to. The process of infringement cognizance and legal judgment is time-consuming and labor-intensive, especially when it involves overseas, For example, Pinduoduo, an e-commerce shopping platform in China, more of its advertisement placement tells consumers that "buy together, it's cheaper". But with Pinduoduo became more popular, many people discovered that the platform was full of fake products, many people have discovered that there are many fakes on this platform. "Bluemoon Laundry Detergent" became "Blue Moon Laundry Detergent", and "Liby Laundry Detergent" became "Liri Laundry Detergent". Commodities as small as a few dollars, household appliances and electronic equipment as large as several thousand dollars, it can be said that top-brand products can be seen everywhere, and even mother and baby products are counterfeit,

and the Pampers diapers used by children are even more shocking. Not only the recovered diapers are not disinfected or even cleaned, they are put on the market again. This is just the tip of the iceberg that has come to light. According to statistics, Pinduoduo has more than 600 million users. Among these users, some elderly users believe that what is said on TV must be good. With the development of technology, the age group of people who have access to information through the media is getting older. There are many things they won't care about. Even young people may not immediately recognize the Bluemoon and the Blue Moon shell appearing in front of them at the same time. The second is that the punishment is small, and infringing companies can make a comeback by changing their labels. For example, some domestic manufacturers of pirated toy models have been fined many times, and they have repeatedly changed brands and resumed their old businesses. Finally, domestic consumers' copyright awareness is still relatively weak, the effect If all the products that viewers buy from TV under the meta-universe are counterfeit goods, viewers will lose confidence in the T2O shopping model. Therefore, if the Metaverse T2O shopping model want to develop well, it is necessary to control the quality and authenticity of the products from the source. The second problem is that the development and production of derivatives are lagging behind. Most of the derivatives, Most of the derivatives especially the development cycle is seriously delayed, which is not in line with the development law of the derivatives market, which is the reason why many fans cannot buy the stock products and have to wait for some time to get a small amount of derivatives. In 2021, the pre-sale period of the blind box of "Country Love" will reach more than 60 days. The long production lead time will not only result in a loss of consumers but also allow cottage products to take over the market early.

#### 4 Conclusion

The shopping model of the Metaverse + T2O redefined the shopping model of e-commerce and brought new economic growth points for the development of the cultural industry. At present, the shopping model of the Metaverse + T2O is still in the exploratory stage, but according to the current speed of technological development, maybe the shopping model of the Metaverse + T2O will meet you soon. Just like a year ago, the Metaverse was still a concept, but now some people have bought land and built houses in the Metaverse, and there are also stars who want to hold concerts in the

Metaverse. It can be said that the integration of the Metaverse with all walks of life is a step towards the exploration of a wise digital civilisation.

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